AMENDMENT

<u>In the Claims:</u>

Please amend the claims as follows:

1-22. (Cancelled)

23. (Presently amended) A method for a spacecraft maneuver analyst to model orbital maneuver phenomena on a computer without needing to hard-code a software solution <u>for new spatial objects,</u> comprising:

defining an original coordinate system within a graphic user interface of said computer;

defining one or more parent spatial objects relative to said original coordinate system by selection of one or more pre-existing files from within said graphic user interface; and

creating at least one new spatial object based on said one or more parent spatial objects, comprising:

defining said new spatial object relative to said one or more parent spatial objects, wherein said one or more parent spatial objects and said at least one new spatial object are related to orbital maneuver phenomena.

24. (Previously presented) The method of claim 23, wherein said one or more parent spatial objects and said at least one new spatial object are selected from the group consisting of coordinate systems, coordinate systems primitives, derivatives of coordinate system primitives, and combinations thereof.

25. (Previously presented) The method of claim 23, wherein defining said new spatial object relative to said one or more parent spatial objects comprises:

finding said new spatial object in one parent spatial object and using information explicitly provided by said analyst into the graphic user interface to obtain a first transformation;

finding said one parent spatial object in said new spatial object to obtain a second transformation; and

combining said first and second transformations to create said new spatial object.

26. (Previously presented) The method of claim 23, wherein defining said new spatial object relative to said one or more parent spatial objects comprises:

finding said new spatial object in each of said one or more parent spatial objects; and

performing a building operation to obtain a combined transformation based on said parent spatial objects to create said new spatial object.

27. (Previously presented) The method of claim 23, wherein defining one or more parent spatial objects relative to said original coordinate system is accomplished by user input, file input, or both.

28. (Previously presented) The method of claim 23, wherein said original coordinate system is a default within said graphic user interface of said computer.

29. (Previously presented) The method of claim 23, wherein said original coordinate system is selectable within said graphic user interface from pre-existing coordinate systems.

30. (Previously presented) The method of claim 23, wherein said new spatial object is subsequently reused by said analyst as a parent spatial object to create a different new spatial object.

31. (Previously presented) The method of claim 23, wherein a correction to a parent spatial object results in a correction to said new spatial object.

32. (Previously presented) A system for a spacecraft maneuver analyst to model orbital maneuver phenomena on a computer system without needing to hard-code a software solution, comprising:

a processor;

a memory, addressable by the processor, including software instructions adapted to enable the computer system to perform the method of claim 23.